Postsecondary faculty instructional methods

Postsecondary instructional faculty and staff use a variety of methods to instruct students, make classroom assignments, grade students' work, and test students' competency. There has been much debate about which instructional methods are most effective in educating students. One factor in determining the type of instructional methods postsecondary faculty use may be the academic discipline of the particular class.

■ In fall 1992, more than one-third of all instructional faculty and staff used teaching tools such as computational tools/software and computer aided instruction. Engineering faculty were more likely to use computational tools/software than faculty from other academic disciplines.

■ Sixty-three percent of postsecondary instructional faculty and staff assigned student presentations, and 53 percent assigned term or research papers in fall 1992. Compared to faculty in other academic disciplines, natural sciences and engineering faculty were less likely to use student presentations as an instructional method.

■ In fall 1992, postsecondary instructional faculty and staff generally were more likely to use competency-based grading than to grade on a curve consistently across most academic disciplines. However, engineering and natural sciences faculty were more likely to grade on a curve than education and humanities faculty.

■ Fifty-seven percent of postsecondary instructional faculty and staff used essay midterms/finals in fall 1992. Humanities and social sciences faculty were more likely to use essay midterms/finals than engineering and natural sciences faculty.
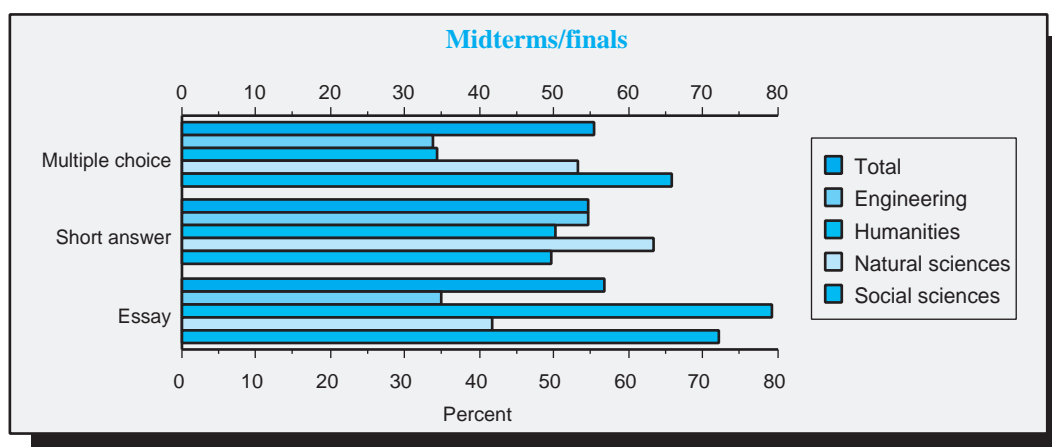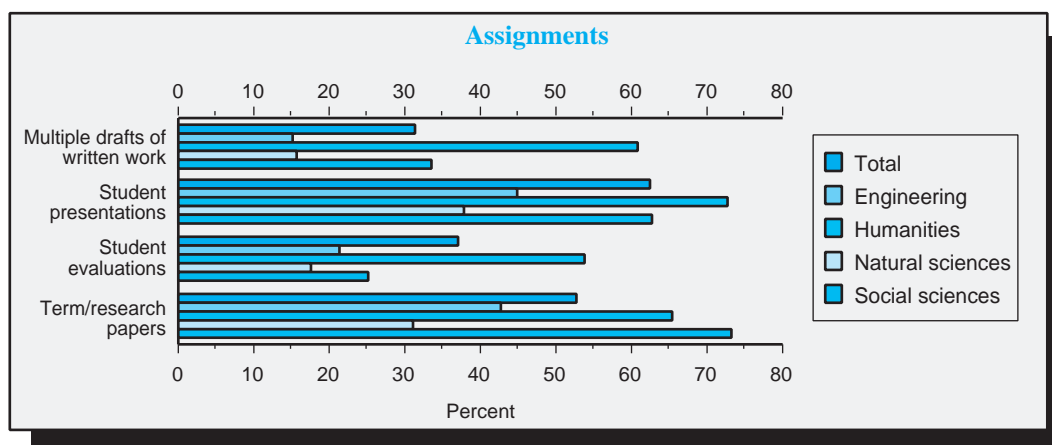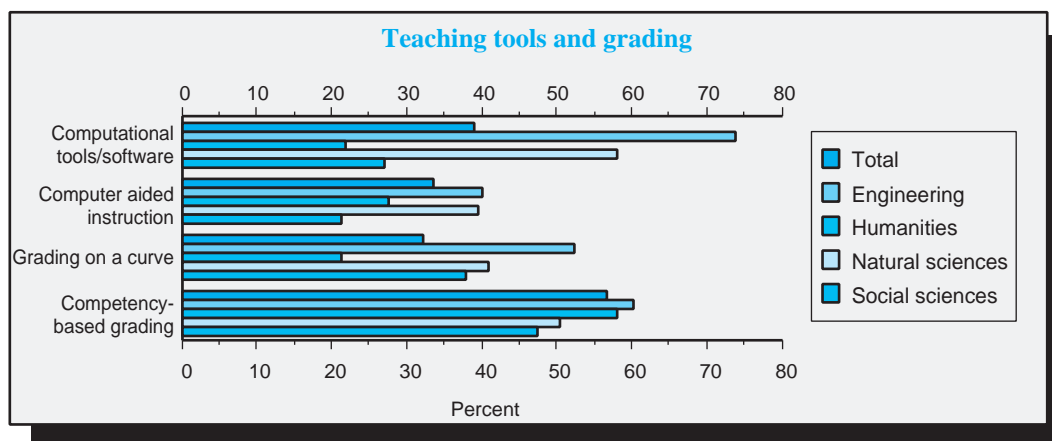
Percentage of postsecondary instructional faculty and staff who used selected instructional methods* for undergraduate classes during the semester, by academic discipline: Fall 1992

Instructional method	Total	Agriculture/ home economics	Business	Edu- cation	Engi- neering	Fine arts	Health sciences	Human- ities	Natural sciences	Social sciences	Other
Teaching tools											
Computational tools/software	39.0	38.1	54.6	35.5	74.0	21.3	40.4	21.9	58.2	27.2	34.0
Computer aided instruction	33.7	31.7	36.8	37.4	40.0	32.0	41.5	27.6	39.6	21.3	34.7
Grading											
Grading on a curve	32.3	47.8	38.8	18.7	52.5	26.7	23.4	21.3	41.0	38.0	33.5
Competency-based grading	56.6	45.2	49.9	62.9	60.3	69.1	64.7	58.2	50.6	47.6	60.2
Assignments											
Multiple drafts of written work	31.5	27.7	22.1	39.0	15.2	23.7	25.2	60.9	15.9	33.6	28.3
Student presentations	62.7	69.5	61.0	79.7	45.0	78.4	67.8	72.9	38.0	62.8	70.4
Student evaluations	37.1	32.2	29.4	55.9	21.5	62.4	34.1	53.9	17.7	25.3	41.0
Term/research papers	52.9	59.0	55.6	61.0	42.8	45.1	50.6	65.5	31.1	73.4	53.0
Midterms/finals											
Multiple choice	55.4	65.9	74.6	57.5	33.9	38.1	80.6	34.4	53.3	65.9	64.9
Short answer	54.6	74.2	58.7	53.2	54.7	48.3	43.3	50.2	63.3	49.7	59.5
Essay	56.8	69.2	54.8	64.3	34.9	49.1	34.2	79.3	41.8	72.2	57.4

* Includes those faculty who responded "some" or "all" of the time.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Percentage of postsecondary instructional faculty and staff who used selected instructional methods* for undergraduate classes during the semester, by selected academic disciplines: Fall 1992

Teaching tools and grading

Categories: Computational tools/software, Computer aided instruction, Grading on a curve, Competency-based grading

Legend: Total, Engineering, Humanities, Natural sciences, Social sciences

Percent

Assignments

Categories: Multiple drafts of written work, Student presentations, Student evaluations, Term/research papers

Legend: Total, Engineering, Humanities, Natural sciences, Social sciences

Percent

Midterms/finals

Categories: Multiple choice, Short answer, Essay

Legend: Total, Engineering, Humanities, Natural sciences, Social sciences

Percent

* Includes those faculty who responded "some" or "all" of the time.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Study of Postsecondary Faculty, 1993.

Table S41 **Standard errors for the text table in *Indicator 41***

Instructional method	Total	Academic discipline									
		Agriculture/ home economics	Business	Edu- cation	Engi- neering	Fine arts	Health sciences	Human- ities	Natural sciences	Social sciences	Other
Teaching tools											
Computational tools/software	0.6	4.2	1.7	1.9	2.3	1.5	1.8	0.9	1.2	1.3	1.5
Computer aided instruction	0.5	4.3	1.5	1.8	2.5	1.6	1.8	1.1	1.2	1.1	1.4
Grading											
Grading on a curve	0.5	4.8	1.8	1.3	3.0	1.6	1.9	0.9	1.2	1.4	1.5
Competency-based grading	0.5	3.7	1.6	1.8	2.5	1.7	1.8	1.1	1.1	1.6	1.7
Assignments											
Multiple drafts of written work	0.5	3.7	1.4	1.8	1.7	1.5	1.6	1.0	0.9	1.3	1.6
Student presentations	0.6	4.6	1.6	1.6	2.9	1.5	1.8	0.9	1.1	1.5	1.4
Student evaluations	0.6	3.9	1.5	1.9	2.2	1.9	1.7	1.0	0.9	1.4	1.5
Term/research papers	0.6	3.6	1.6	1.8	2.6	2.0	1.8	1.1	1.0	1.4	1.6
Midterms/finals											
Multiple choice	0.6	3.9	1.5	1.8	2.8	1.9	1.5	1.1	1.2	1.7	1.6
Short answer	0.5	3.4	1.8	1.7	2.9	2.0	1.8	1.1	1.2	1.5	1.6
Essay	0.6	4.9	1.7	1.8	2.7	2.1	1.6	0.9	1.2	1.4	1.6